CLAIM AMENDMENTS

(Insertions indicated by underline; deletions indicated by strikethrough)

In the Claims

Please cancel claims 13-18 and amend claims 2 and 5 as indicated below.

1. (previously amended) A method for obtaining transient gene expression or stable gene expression in somatic cell tissue comprising: exogenously administering a plasmid expression vector to differentiated somatic cell tissue selected from the group consisting of skin, muscle, fat and mammary tissue of a living organism, using a jet injector, wherein said plasmid expression vector is expressed in the living organism.

2. (currently amended) A method according to claim 1 further involving the steps of a member selected from the group consisting of (a) ablation of malignant cells by transient expression of the plasmid expression vector, (b) ablation of cells infected with specific viruses by transient expression of the plasmid expression vector, (c) immunization, (d) generation of chimeric organisms, (e) converting secretory cells of living organisms to produce a protein, (f) modifying the expression of endogenous gene, (g) providing a means for studying the effects of specific proteins in differentiated and undifferentiated tissue, (h) generating an animal model system for human diseases, and (i) ~~inducing wound healing via the production~~ the transient expression of a ~~specific~~ growth factor ~~genes~~.

3. (original) A method according to claim 2 wherein the secretory cells of the living organism are mammary or bladder cells.

4. (previously amended) A method according to claim 1 wherein said plasmid expression vector comprises DNA sequences selected form the group consisting of a DNA sequence claiming enhancer/promoter and other regulatory elements, a DNA sequence which can be transcribed into an RNA which RNA can be (a) translated into a protein, (b) includes a transcriptional termination signal, and (c) may include coding sequences for a signal peptide which allows a protein to be exported from the cell, a DNA sequence which targets a gene for incorporation into the genome, a DNA sequence which directly replicates in eukaryotic cells, and a plasmid sequence which allows DNA replication in prokaryotic cells.

5. (currently amended) A method according to claim 4 wherein said DNA sequence is constructed using an enhancer/promoter component, a termination signal, and a

signal peptide coding sequence from different genes ~~which are combined to directly express in a specific manner~~.

6. (previously amended) A method according to claim 2 wherein the enhancer/promoter sequence is a naturally occurring promoter/enhancer.

7. (previously amended) A method according to claim 4 wherein the enhancer/promoter is composed of a generic TATA box and binding sites for the E2 transcription factor and said enhancer/promoter is coded by the papillomavirus genome, wherein said enhancer/promoter is expressed in cells capable of expressing the E2 protein from papillomavirus.

8. (previously amended) The method of claim 1, wherein said differentiated tissue is selected from the group consisting of muscle, fat and mammary tissue.

9. (previously amended) The method of claim 1, wherein said plasmid expression vector comprises a promoter-enhancer sequence selected from the group consisting of human cytomegalovirus immediate early gene 1 and whey acidic protein promoter sequence.

10. (original) The method of claim 1, wherein said plasmid expression vector comprises a hybrid gene selected from the group consisting of human cytomegalovirus immediate early gene 1 and chloramphenicol acetyl transferase gene; whey acidic protein promoter sequence and chloramphenicol acetyl transferase gene; and human cytomegalovirus immediate early gene 1 and β-galactosidase gene.

11. (previously amended) The method of claim 1, wherein said plasmid expression vector is expressed in a living organism at about 1 to about 3 cm distant from the site of injection.

12. (original) The method of claim 1, wherein said plasmid expression vector comprises supercoiled DNA fragments of 1 microgram/microliter in 1 mM TRIS - .1 mM EDTA and is administered in volumes between 100 microliters and 500 microliters per injection.

13. (canceled)

14. (canceled)

15. (canceled)

16. (canceled)

17. (canceled)

18. (canceled)

19. (previously amended) A method for obtaining transient gene expression or stable gene expression in mammary tissue comprising: exogenously administering a plasmid expression vector, to mammary tissue of a living organism, using a jet injector, wherein said plasmid expression vector is expressed in the living organism.

20. (original) A method according to claim 1, wherein said living organism is immunized by said plasmid expression vector which is expressed in said living organism.

21. (original) A method of immunization comprising the steps of jet injecting an effective amount of a plasmid expression vector, to transform differentiated somatic cell tissue of a living organism selected from the group consisting of skin, muscle, fat and mammary tissue, wherein said plasmid expression vector is expressed in the living organism, and wherein DNA expressed from said plasmid expression vector immunizes said living organism.

22. (previously added) A method according to claim 2 wherein the enhancer/promoter sequence is the HCMVIE1 promoter/enhancer sequence.

23. (previously added) A method according to claim 2 wherein the enhancer/promoter sequence is an enhancer/promoter sequences constructed using specific DNA elements, which mediate binding by specific transcription factors to directly express only in specific cell types.